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DESCRIPTIVE SUMMARIES FOR PROGRAM ELEMENTS  
OF THE OFFICE OF THE  
DIRECTOR OF OPERATIONAL TEST AND EVALUATION  
RESEARCH AND DEVELOPMENT PROGRAM

FY 1991

JANUARY 1990

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OFFICE OF THE SECRETARY OF DEFENSE

Director of Operational Test and Evaluation

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PROGRAM ELEMENT DESCRIPTIVE SUMMARIES  
INTRODUCTION AND EXPLANATION OF CONTENTS

1. (U) General. This document has been prepared for the purpose of providing information concerning the office of the Director of Operational Test and Evaluation (DOT&E) program. The Descriptive Summaries provide narrative information on all OT&E program elements and projects.
2. (U) Comparison of FY 1990/1991 and 1989 Data. A direct comparison of FY 1990/1991 data in the Program Element Descriptive Summaries dated January 1989, will reveal significant differences. The primary difference is the scope of Program Element 0605118D, Director of Operational Test and Evaluation, which has been modified to exclude Strategic Defense Systems operational assessment activities. This was done in response to Congressional Conference Language.
3. (U) Relationship of the FY 1990/1991 Amended Budget Structure to the FY 1990/1991 Budget Approved by Congress. Not applicable.

<u>Program Element</u>	<u>Budget Activity 6--Defensewide Mission Support</u>	<u>Remarks</u>
		<i>Operational Test and Evaluation</i>
	0604340D OT&E Capability Improvement	This project is a focused, cohesive initiative to establish and maintain a distributed Department of Defense capability to conduct OT&E on conventional weapons systems in the most realistic environment that is reasonably attainable. Improved OT&E capability will allow DoD to make better production decisions and to better understand our current combat potential with existing weapons systems. This will be a continuing program as additional instrumentation and threat requirements are reviewed by the Services and the Office of the Secretary of Defense. The acquisition of the individual elements will be based on the priority of needs of the operational testing community.
	0605118D Director of Operational Test and Evaluation	This project funds DOT&E's costs for oversight of DoD OT&E. Oversight responsibilities require the DOT&E to become involved in any or all phases of OT&E including: advance test planning; test conduct, data reduction and analysis; evaluation and reporting. This project primarily funds contract technical and analytical support for DOT&E program specific and test capability planning oversight activities. Remaining funds are used to pay for program specific travel. <i>Keywords: Military Budgets, Military Research, Weapons, Weapon Systems,</i>

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FY 1991 RDT&E DESCRIPTIVE SUMMARY

Program Element: 0604340D

Title: OT&E Capability Improvement

Budget Activity: Defensewide  
Mission Support

A. (U) RESOURCES

Project Title	FY1989 Actual	FY1990 Estimate	FY1991 Estimate	Total Program
OT&E CIP	<u>58,420</u>	<u>0</u>	<u>73,800</u>	Continuing
Total	58,420	0	73,800	

B. (U) BRIEF DESCRIPTION OF MISSION REQUIREMENT AND SYSTEM

CAPABILITIES: The capability to conduct valid Operational Test and Evaluation (OT&E) does not exist today for many systems. OT&E is now conducted using facilities designed primarily for development testing, resulting in limitations to test realism (current threats, representative terrain and weather, accurate force-on-force instrumentation, integration of red and blue forces, valid end-game solutions, survivability determination). The OT&E CIP is event driven, in that, this initiative is directed at shortfalls related to scheduled operational tests in full coordination with the Services, Defense Agencies and appropriate DoD Committees and Boards. This is the Office of the Secretary of Defense (OSD) program to establish and maintain a distributed OT&E capability to test weapons systems in a realistic air-land-sea environment.

C. (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

(U) This project is a focused, cohesive initiative to establish and maintain a distributed Department of Defense capability to conduct OT&E on conventional weapons systems in the most realistic environment that is reasonably attainable. Improved OT&E capability will allow DoD to make better production decisions and to better understand our current combat potential with existing weapons systems. This will be a continuing program as additional instrumentation and threat requirements are reviewed by the Services and the Office of the Secretary of Defense. The acquisition of the test elements will be based on the priority of needs of the scheduled operational test events.

(U) FY 1989 Program: -- Begin development of mobile threat replication capability which portrays a marginal representation of selected elements of the Soviet Integrated Air Defense System which included fielded support, facility preparation, logistics, maintenance, transportation and limited instrumentation.

(U) FY 1990 Planned: -- Release of FY 1989 funds will allow for the orderly dispersal of the Mobile Operational Test Force to Service test facilities to support scheduled operational tests. In addition, the following activities are also planned.

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Program Element: 0604340D

Title: OT&E Capability Improvement

Budget Activity: Defensewide  
Mission Support

- Operations and support for systems acquired in FY1988.
- Acquisition of available threat systems to support near-term operational tests.
- Acquire interoperable instrumentation for both threat systems and battle management.
- Acquire aerial threats.
- Acquire rotary wing aircraft.

-- FY1989 funds, which have been authorized and appropriated, have been sequestered in accordance with joint conference language requiring SecDef certification and a General Accounting Office (GAO) audit. The SecDef certified that this program represents no unnecessary duplication on 9 Jan 1989. The GAO audit and report are still pending.

(U) FY 1991 Planned:

-- Operations and maintenance of acquired items and capabilities in support of scheduled operational tests.

-- Acquire threat systems, targets and instrumentation necessary to meet requirements for scheduled operational tests. These requirements are identified as a result of functional analysis and input from the Services and Defense Agencies. They are approved and prioritized by Services and the OSD. These capabilities are not funded by the Services/Defense Agencies or they are funded but will not reach initial operating capability in time for usage in critical scheduled tests.

-- Continue the methodology and corrective action as stated.

(U) Program to Completion: This is a continuing program. The OT&E Capability Improvement Program takes advantage of departmental programs and procures items for scheduled operational test and evaluation. The acquisition, operation and maintenance of individual test items will be conducted with the appropriate lead Service/Agency. Future acquisition is planned for threat systems, instrumentation, targets, facilities, test planning, operations and support and improvement of OT&E community-wide deficiencies and capabilities and improvement of OT&E community-wide deficiencies.

D. (U) WORK PERFORMED BY: OT&E Capability Improvement Program will be managed by the Slingshot coordinating committee and executed by the Services.

E. (U) COMPARISON WITH FY 1990 DESCRIPTIVE SUMMARY: The program has matured to include land and sea operational test requirements in addition to the initial focus of

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Program Element: 0604340D

Title: OT&E Capability Improvement

Budget Activity: Defensewide  
Mission Support

air-electronic warfare testing. The scheduled near-term "operational test" is now the program prime driver rather than the exclusive replication of a Soviet two regiment front.

F. (U) RELATED ACTIVITIES: Threat and Global Positioning System instrumentation development activities are ongoing in individual Service programs. This PE provides funds for items needed to support OT&E test requirements that are not being procured by the Service programs.

G. (U) OTHER APPROPRIATION FUNDS: None.

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FY 1991 RDT&E DESCRIPTIVE SUMMARY

Program Element: 0605118D  
PE Title: Director of Operational  
Test and Evaluation

Budget Activity: 6--Defensewide  
Mission Support

A. (U) RESOURCES (\$ in Thousands)

Project Title	FY1989 <u>Actual</u>	FY1990 <u>Estimate</u>	FY1991 <u>Estimate</u>	Total <u>Program</u>
DOT&E	<u>12,234</u>	<u>12,725</u>	<u>17,000</u>	Continuing
Total	12,234	12,725	17,000	

B. (U) BRIEF DESCRIPTION OF MISSION REQUIREMENT AND SYSTEM

CAPABILITIES: DOT&E is the principal advisor to the Secretary of Defense and the Under Secretary of Defense for Acquisition on operational test and evaluation (OT&E) matters. DOT&E is responsible for the policy and procedures for all aspects of OT&E within the Department of Defense (DoD), with particular focus on OT&E that supports major weapon system production decisions. Currently, there are approximately 200 programs with Army, Navy, Air Force, DNA and other agencies. In particular, major defense acquisition programs may not proceed beyond low-rate initial production until initial operational test and evaluation of the program is completed. This requires early involvement by DOT&E in the development and planning phase of a program to ensure successful completion and continued progress through milestones to full-scale production. Key elements of the DOT&E's authority for major defense acquisition programs include the approval of Service OT&E plans, assessment of completed OT&E for adequacy and determination of combat effectiveness and suitability of the weapons system under test. Other activities include participation in DoD-wide planning, programming and budgeting activities to determine test and evaluation capability needs and priorities.

C. (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

This project funds DOT&E's costs for oversight of DoD OT&E. Oversight responsibilities for major weapons systems require the DOT&E to become involved in any or all phases of OT&E including: advance test planning; test conduct, data reduction and analysis; evaluation and reporting. This project primarily funds contract technical and analytical support for DOT&E program specific and test capability planning oversight activities. Remaining funds are used to pay for program specific travel.

(U) FY 1989 Program:

-- Reviewed Service programs: ASPJ, Advanced Tactical Aircraft, AEGIS, AMRAAM, AV-8B Harrier, SINGARS, NAVSTAR GPS and others.

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Program Element: 0605118D  
PE Title: Director of Operational  
Test and Evaluation

Budget Activity: 6--Defensewide  
Mission Support

-- Developed measurable standards with the Services for initial operational capability attainment to ensure program funding is tied to goals.

(U) FY 1990 Planned Program:

-- Review Service programs: FAAD CAPSTONE, LHX, ATF (INEWS/ICNIA), F-14D, RAM (RIM-116A) and others.

-- Jointly with Deputy Director Defense Research and Engineering (Test and Evaluation), orchestrate corporate test and evaluation capability needs review and update for FY 1994-1999 program and validate FY 1992-1997 test capabilities investment candidates.

(U) FY 1991 Planned Program:

-- Review Service programs test plans for adequacy (including projected funding levels and resource requirements) for OT&E. Types of programs to be reviewed include Trident D-5 Missile, M1A2 Abrams Tank, B2, ATF, ATA, C-17, ASAT, P-3C, PEACEKEEPER RAIL GARRISON, SSN-21, TACIT RAINBOW and others.

-- Identify initial operational test and evaluation qualification for major acquisition systems to proceed beyond LRIP.

-- Analyze results of OT&E for adequacy of test performance for combat effectiveness and suitability of items tested.

-- Jointly with DDDR&E(T&E), review FY 1992-1997 test capability investment programs and validate FY 1994-1999 investment candidates.

(U) Program to Completion: This is a continuing program. DOT&E future staffing levels are presently being reviewed to take into consideration increasing DOT&E overview activities and decreasing the use of contractor support. This will provide in-house expertise and capabilities greatly enhancing review of major acquisition programs as they progress through the acquisition cycle. OT&E involvement in the acquisition cycle will become more comprehensive as this office becomes more involved earlier in the test cycle (before Milestone II) and as selected systems are reviewed in follow-on OT&E for continuing DoD production decisions.

D. (U) WORK PERFORMED BY: Technical and analytical support is provided by the Institute for Defense Analyses, Alexandria, VA; and Advanced Systems Development, Alexandria, VA.

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Program Element: 0605118D  
PE Title: Director of Operational  
Test and Evaluation

Budget Activity: 6--Defensewide  
Mission Support

E. (U) COMPARISON WITH FY 1990 DESCRIPTIVE SUMMARY: This Program Element has been modified in response to Congressional Conference concerns on the need to conduct OT activities on the Strategic Defense System at this time.

F. (U) RELATED ACTIVITIES:

-- Deputy Director Research and Engineering (Test and Evaluation) oversees developmental test and evaluation and other related activities under PE 0605804D.

G. (U) OTHER APPROPRIATION FUNDS: Administrative travel and personnel costs of the DOT&E are funded in O&M, DA, PE 0902198D.

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CONTRACTED ADVISORY AND ASSISTANCE SERVICES (CAAS)  
WEAPON SYSTEMS SUPPORT

Appropriation: Director of Operational Test and Evaluation, Defense

(Dollars in Thousands)

FY1989      FY1990      FY1991

A. Individual Experts and  
Consultants (IEC)

Total Section A

B. Studies, Analysis,  
and Evaluations (SAE)

1. Manpower and Personnel
2. Concepts and Plans
3. Operations and Force Structure
4. Installations and Logistics
5. Science, Technology,  
Systems and Equipment
6. Management
7. Intelligence
8. International Security
9. Social and Natural Sciences

8,686      3,460      3,800

Total Section B      8,686      3,460      3,800

C. Management Support Services (MSS)

Total Section C

D. Engineering Technical Services

Total Section D

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CONTRACTED ADVISORY AND ASSISTANCE SERVICES (CAAS) (Continued)  
WEAPON SYSTEMS SUPPORT

Appropriation: Director of Operational Test and Evaluation, Defense

(Dollars in Thousands)

	<u>FY1989</u>	<u>FY1990</u>	<u>FY1991</u>
E. CAAS FFRDCs			
DoD	2,370	8,500	11,300
Non-DoD			
Total Section E	2,370	8,500	11,300
F. Non-CAAS FFRDCs			
Total Section F			
GRAND TOTAL	11,056	11,960	15,100

Exhibit PB-27

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**Special Analysis--Weapon Systems Services and Support  
Contract Support Services**

**CAAS NARRATIVE**

(U) Both the Study, Analysis and Evaluation (SAE) contractors and Federally Funded Research and Development Centers (FFRDC) provide technical and analytical support to the Director, Operational Test and Evaluation (DOT&E) office in the execution of its statutory responsibilities. The Director must be able to analyze and evaluate the technical and operational aspects of a weapon system during the various phases of operational test and evaluation (i.e., planning, data recording and analysis, evaluation and reporting) to ensure combat effectiveness and identify areas for improvement. Review of individual test programs is needed to assist in the evaluation of the adequacy of Service test plans and to analyze test data to support the assessment of the effectiveness of weapon systems for combat and to evaluate effectiveness and implementation of operational test and evaluation policies. In addition, assistance is required to develop and update operational test and evaluation data bases and to support the continuing analysis of Service operational test and evaluation resources. Through such continuing evaluations, the Director will be able to assess the combat effectiveness of individual weapons systems and identify areas that require attention in order to improve the Department of Defense's combat capability and its capability to conduct operational test and evaluation. The specific program mix (e.g., AMRAAM, FAAD, BIGEYE, LHX) varies from year to year as programs progress through the acquisition process.

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